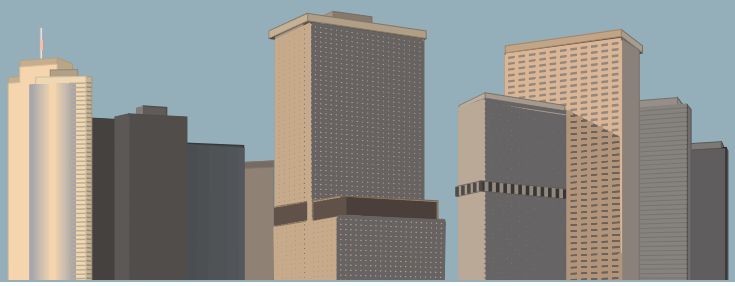


Di enhancing the value of the building···

Di ensuring perfect safety & reliability

Di providing ride comfort

Di maximizing energy & space saving

Di furnishing modern & universal design

Distributed Inverter Elevator

DISTRIBUTED INVERTER

Di

MID RISE

SIGMA

SIGMA

Truly your elevator partner

The Changwon Factory

The Changwon Factory in Korea which is referred as the single largest elevator plant provides one-stop manufacturing of high quality

- Annual production Capacity(as of 2005)
  - Elevator : 15,000 units
  - Escalator : 700 units

The Design Center

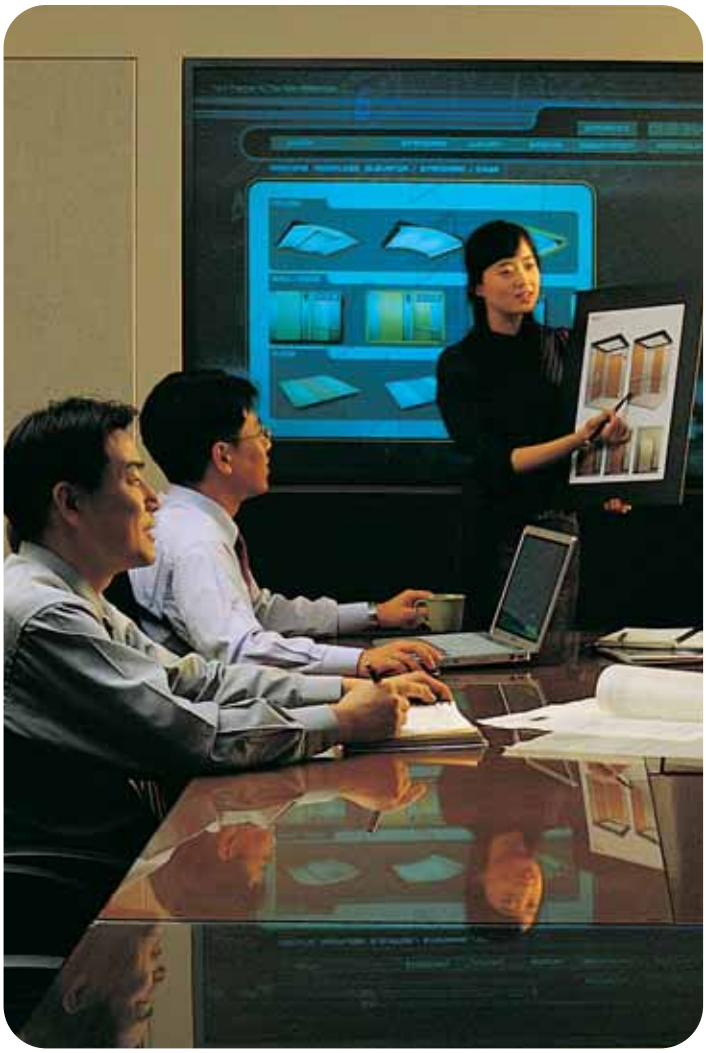
The Design Center in Korea provides perfect customer satisfaction by meeting any customer needs

- Established in 1995
- 10 aesthetic designers(as of 2005)

SIGMA in the world

SIGMA has been serving you in more than 70 countries around the world for over 35 years

- Accumulated Sales(as of 2005)
  - over 150,000 units



Safety & Reliability

SIGMA Elevator company's number one priority is safety. Our basic spirit to ensure safety is through control technology such as 'back-up solution, safety drive operation' and more than 10 other safety devices.

We execute more than 30 kinds of reliability tests. These intense quality assurance programs make fool-proof products from design stage.

Through SIGMA Net which monitors elevator, escalator and movingwalks by internet-based software, our elevator not only provides a comprehensive and easy-to-use interface but also brings perfect quality to reality.

EMI Test
(Electro Magnetic Interference)

Vibration and Dropping Test

ESD Test
(Electro Static Discharge)

Burst Test

ISO 9001 ISO 14001

Ride Comfort

SIGMA provides best-in-class ride quality on every lift we install. High switching speed of power device in the drive(IGBT) reduces motor noise. Moreover, door operator with VVVF control ensures silent door movement. The result of modern technology allows SIGMA to reduce vibration and noise to a minimum level.

Customers define luxury as a swift, smooth and silent ride. Our seamless interface between tenant requirements and elevator performance meets the exact standards and higher expectation of customers.

Energy & Space Saving

Distributed Inverter(Di) control drastically improves reliability and performance of elevators. By adopting Di control, the control panel size has been reduced by 46% not to mention wiring and installation time. The formation of high efficiency and compactness allows the traction machine to save energy by 50% and provide installation space.

SIGMA's sophisticated, state-of-the-art 'fuzzy logic' reduces waiting time and enhances performance efficiency at a particular moment, depending on its location, direction, load and the overall passenger calls currently on the system. SIGMA's modern microprocessor technology can be used to optimize group performance to satisfy high customer standards.

Universal Design

SIGMA Elevator company has a 'Design Center' for creative and innovative product development to meet the various needs of customers.

Our newly released ceiling and fixture fully contains brightness and luxury which represent the latest trend.

SIGMA believes there is no boundary in usage of the elevator. This kind of belief not only enhances the external finish of elevator but also enriches the essence of human life. We proudly recommend everyone to experience our innovative design and wide assortments with all your senses.

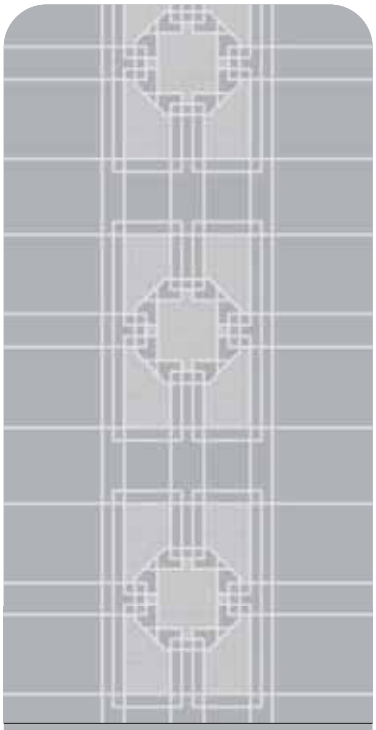
Newly designed round buttons
offer attractive shape and distinctive feelings

Thickness of handrail
provides comfortable rest and stability

OPB with tactile buttons
enables the handicapped to easily recognize

Fixture installed at proper height
allows children to free access

Natural Modern



more than 1000kg

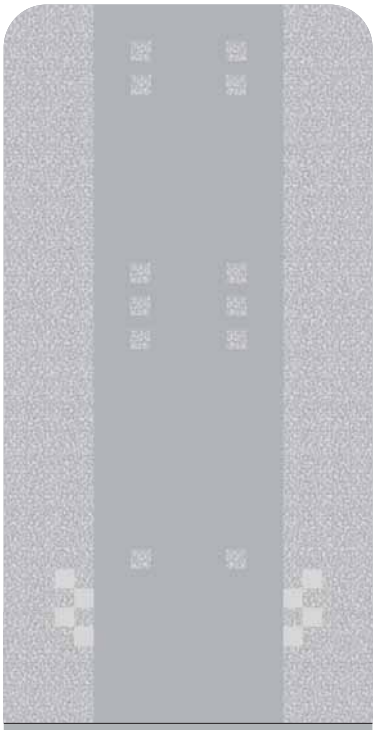
less than 900kg

Ceiling	C-NS1
OPB	CBM-22C
Wall	STS Hairline Etching(EW2-071)
Door	STS Hairline Etching(EH1-071)
Handrail	HR-04
Floor	Deco Tile

※The images listed on this catalog may be different from actual products.

Royal Modern

Ceiling	C-NS2
OPB	CBM-22C
Wall	STS Hairline Etching (EW2-067)
Door	STS Hairline Etching (EH1-067)
Handrail	HR-04
Floor	Deco Tile



more than 1000kg

less than 900kg

Techno Modern

Ceiling	C-NS3
OPB	CBM-22C
Wall	STS Hairline Etching (EW2-060)
Door	STS Hairline Etching (EH1-060)
Handrail	HR-04
Floor	Deco Tile

more than 1000kg

less than 900kg

Contemporary Modern

Ceiling	C-NL1
OPB	CBM-22
CPI	CID-11
Wall	STS Hairline Etching (EW2-064) + STS Hairline
Door	STS Hairline Etching (EH1-064)
Handrail	HR-04
Floor	Deco Tile

more than 1000kg

less than 900kg

Entrance

1

2

3

1

- **Jamb** : Narrow Jamb in Painted Steel Sheet (No. LGM-922)
- **Door** : Painted Steel Sheet (No. LGM-922)
- **Sill** : Extruded Hard Aluminum
- **Hall Indicator & Hall Button** : VID-M652

2

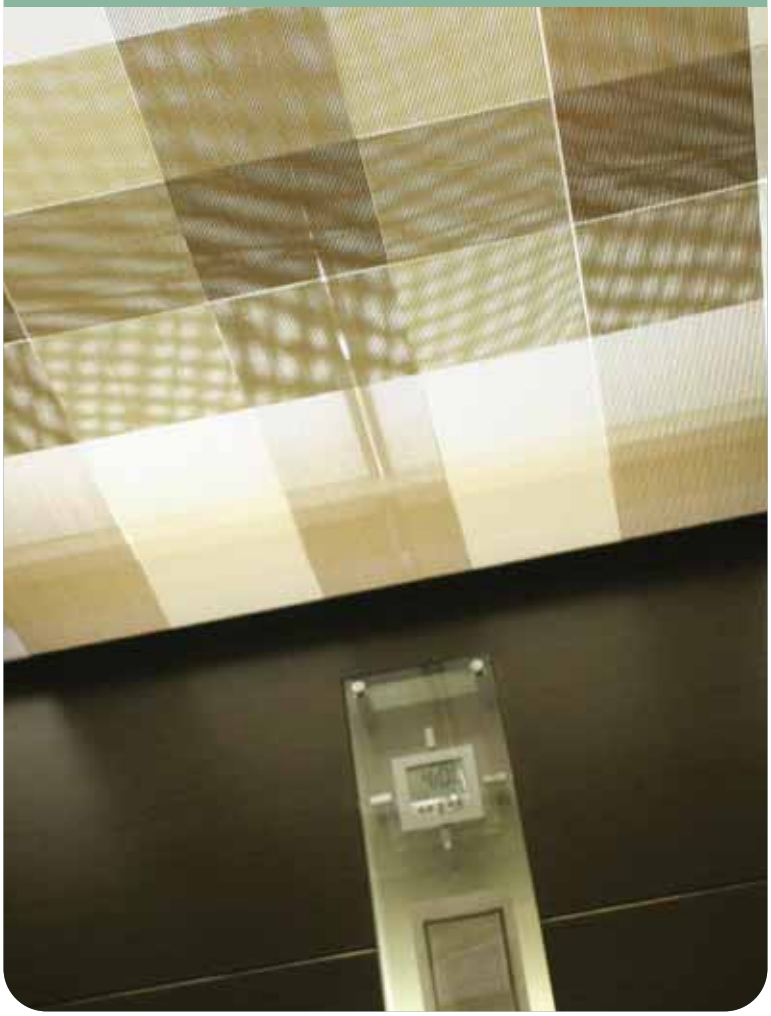
- **Jamb** : Wide Taper Jamb in STS Hairline
- **Door** : STS Hairline Etching (No. EH1-064)
- **Sill** : Extruded Hard Aluminum
- **Hall Indicator & Hall Button** : VID-M652

3

- **Jamb** : Wide Taper Jamb with Transom Panel in STS Hairline
- **Door** : STS Hairline Etching (No. EH1-067)
- **Sill** : Extruded Hard Aluminum
- **Hall Indicator** : HID-A122
- **Hall Button** : HBM-R45

Ceiling

Mixture of classic and modern design with sensuous illumination enjoying comforts of natural lights inside the elevators



Standard

C-HX2
(Painted steel sheet color No.LGM-922)

C-HX3
(Painted steel sheet color No.LGM-922)

C-NS1
(Painted steel sheet color No.LGM-924+LGM-920)

C-NS2
(Painted steel sheet color No.LGM-924+LGM-920)

Option

C-NS3
(Painted steel sheet color No.LGM-924+LGM-920)

C-NL1
(Painted steel sheet color No.LGM-924+Stainless Mirror)

Fixture & Colors

OPB

CBM-22C

Hall Button

HBM-R45

VID-M652T

VID-M652

Handicapped OPB

CBM-44SH

OPB

CBM-13C

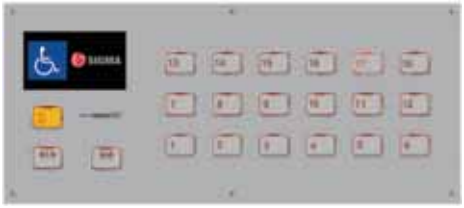
Hall Button

HBM-S43

VID-M632T

VID-M632

Handicapped OPB



CBM-42SH

Hall Position Indicators (Horizontal Type)

HID-A122

HID-A132

HID-C132

Car Position Indicators

CID-10

CID-12

Handrails

Painted Steel Sheet Color

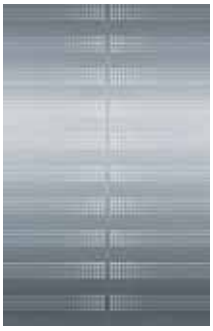
• Actual colors may be different from these prints.

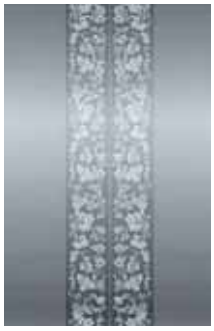
Etching Patterns

Etching Patterns


EW2-043
EH1-043


EW2-060
EH1-060


EW2-062
EH1-062


EW2-063
EH1-063


EW2-064
EH1-064


EW2-067
EH1-067


EW2-069
EH1-069


EW2-070
EH1-070


EW2-071
EH1-071


EW2-072
EH1-072


EW2-074
EH1-074


EW2-075(BR)
EH1-075(BR)


EW2-076
EH1-076


EW2-077
EH1-077


EW3-001
EH2-001


EW3-003
EH4-003


EW3-031
EH2-031


EW4-005
EH3-005

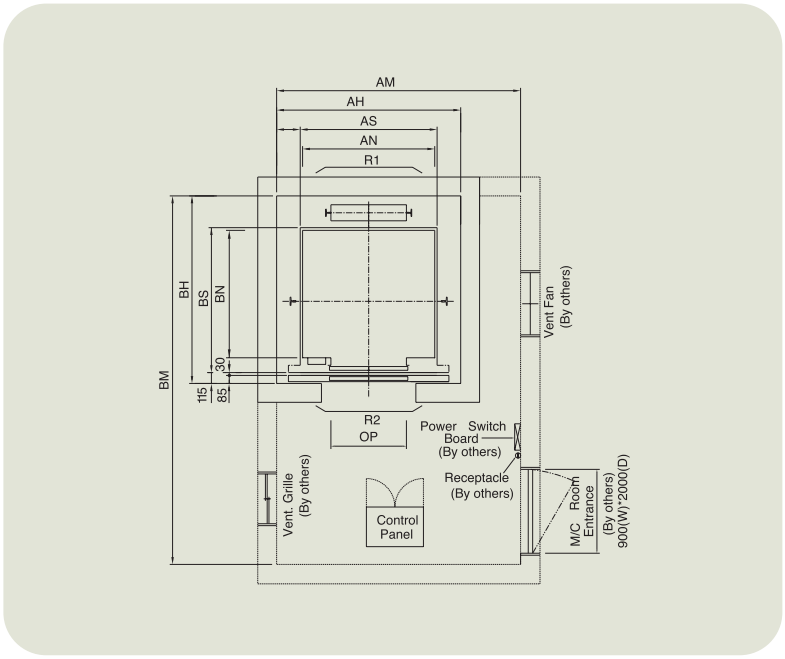

EW4-034
EH3-034


EW6-028
EH3-028

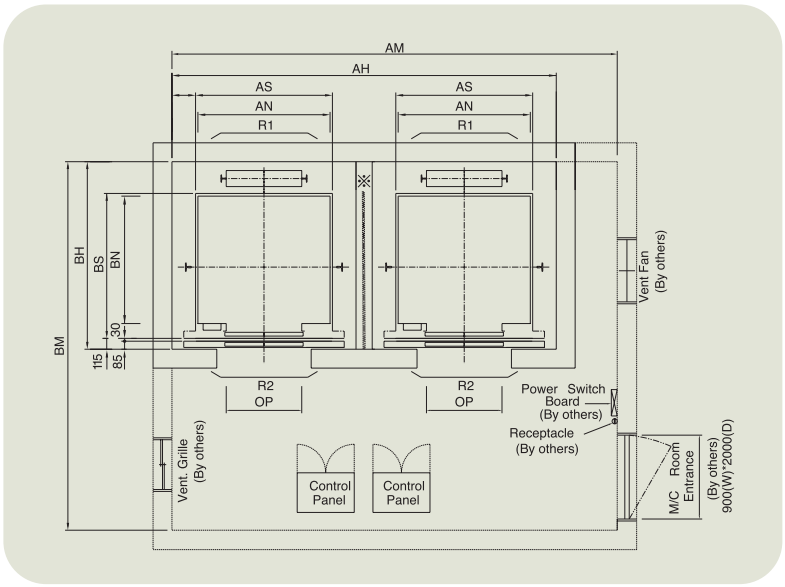
Technical Data

Passenger Elevator Layouts

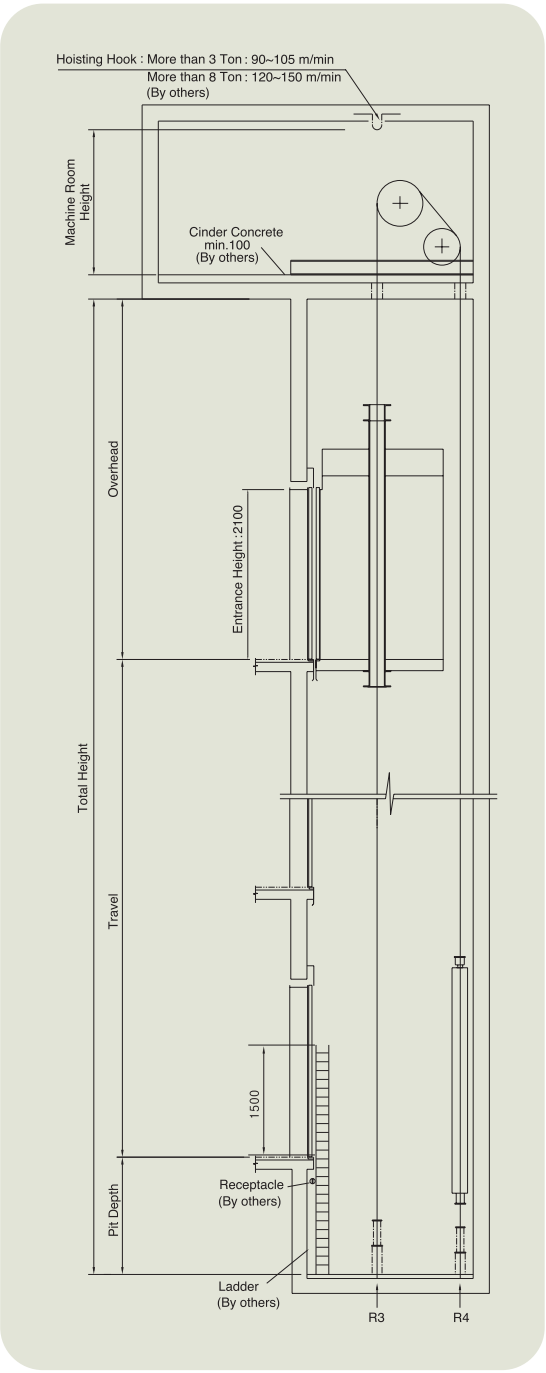
Hoistway & Machine Room Plan(Simplex)



Hoistway & Machine Room Plan(Duplex)



Hoistway Section



Note

1. ※(Separating Beams) : By Others
2. Unit : mm

Technical Data

Overhead, Pit Depth & Machine Room Height

(Unit : mm)

Items	Speed (m/min)	Load (kg)	Code / Country			
			Standard	EN Code	Malaysia	Singapore
Overhead	60	L≤1020	4550	4200	4200	4400
		L > 1020	4600	4250	4250	4400
	90	L≤1020	4750	4400	4400	4450
		L > 1020	4800	4450	4450	4600
	105	L≤1020	4950	4600	4600	4600
		L > 1020	5000	4650	4650	4750
Pit Depth	60	L≤1020	1500	1450	1450	1450
		L > 1020	1600	1550	1600	1550
	90	L≤1020	1800	1600	1550	1500
		L > 1020	1800	1700	1700	1600
	105	L≤1020	2100	1700	1800	1700
		L > 1020	2100	1850	1950	1950
Machine room Height	60,90,105	L≤1020	2200	2200	2500	2200
		L > 1020	2400	2400	2850	2400

(Unit : mm)

Items	Speed (m/min)	Code / Country			
		Standard	EN Code	Malaysia	Singapore
Overhead	120	5500	5200	5200	5200
	150	5700	5400	5400	5400
Pit Depth	120	2100	2100	2100	2000
	150	2400	2500	2500	2400
Machine room Height	120	2400	2400	2850	2400
	150	2400	2400	2850	2400

Planning Guide For Dimensions | Di1 (60 m/min)

Standard

(Unit : mm)

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size				Machine Room Size				Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
				Inside	Outside	Simplex		Duplex		Simplex		Duplex					
	Person	Load(kg)		AN×BN	AS×BS	AH	BH	AH	BH	AM	BM	AM	BM	R1	R2	R3	R4
60	6	450	800	1400×850	1450×1015	1800	1450	3750	1450	2100	3200	4100	3200	3600	2000	3800	3150
	8	550	800	1400×1030	1450×1195	1800	1630	3750	1630	2100	3400	4100	3400	4050	2500	4550	3350
	9	600	800	1400×1100	1450×1265	1800	1700	3750	1700	2100	3500	4100	3500	4100	2500	4700	3450
	10	680	800	1400×1250	1450×1415	1800	1850	3750	1850	2100	3650	4100	3650	4200	2800	5000	3600
	11	750	800	1400×1350	1450×1515	1800	1950	3750	1950	2100	3750	4100	3750	4550	2900	5200	3750
	13	900	900	1600×1350	1650×1515	2000	1950	4150	1950	2300	3750	4500	3750	5100	3800	6300	4500
	15	1000	900	1600×1500	1650×1665	2000	2100	4150	2100	2300	3900	4500	3900	5450	4300	6600	4700
	17	1150	1000	1800×1500	1890×1685	2400	2200	4950	2200	2700	4000	5300	4000	8000	5200	9550	7150
			1100	2000×1350	2090×1535	2600	2050	5350	2050	2900	3850	5700	3850	8000	5200		
	20	1350	1000	1800×1700	1890×1885	2400	2400	4950	2400	2700	4200	5300	4200	8900	6000	10150	7500
			1100	2000×1500	2090×1685	2600	2200	5350	2200	2900	4000	5700	4000	8900	6000		
	24	1600	1100	2000×1750	2090×1935	2600	2450	5350	2450	2900	4250	5700	4250	10200	7000	10900	8700
				2150×1600	2240×1785	2750	2300	5650	2300	3050	4100	6000	4100	10200	7000		

EN Code

(Unit : mm)

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size				Machine Room Size				Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
				Inside	Outside	Simplex		Duplex		Simplex		Duplex					
	Person	Load(kg)		AN×BN	AS×BS	AH	BH	AH	BH	AM	BM	AM	BM	R1	R2	R3	R4
60	6	450	800	1400×850	1450×1015	1800	1450	3750	1450	2100	3200	4100	3200	3600	2000	3800	3150
	7	525	800	1400×1030	1450×1195	1800	1630	3750	1630	2100	3400	4100	3400	4050	2500	4550	3350
	8	600	800	1400×1100	1450×1265	1800	1700	3750	1700	2100	3500	4100	3500	4100	2500	4700	3450
	9	675	800	1400×1250	1450×1415	1800	1850	3750	1850	2100	3650	4100	3650	4200	2810	5000	3600
	10	800	800	1400×1350	1450×1515	1800	1950	3750	1950	2100	3750	4100	3750	4550	2900	5200	3750
	12	900	900	1600×1350	1650×1515	2000	1950	4150	1950	2300	3750	4500	3750	5100	3800	6300	4500
	13	1000	900	1600×1500	1650×1665	2000	2100	4150	2100	2300	3900	4500	3900	5450	4300	6600	4700
	16	1200	1000	1800×1500	1890×1685	2400	2200	4950	2200	2700	4000	5300	4000	8000	5200	9550	7150
			1100	2000×1350	2090×1535	2600	2050	5350	2050	2900	3850	5700	3850	8000	5200		
	18	1350	1000	1800×1700	1890×1885	2400	2400	4950	2400	2700	4200	5300	4200	8900	6000	10150	7500
			1100	2000×1500	2090×1685	2600	2200	5350	2200	2900	4000	5700	4000	8900	6000		
	21	1600	1100	2000×1750	2090×1935	2600	2450	5350	2450	2900	4250	5700	4250	10200	7000	10900	8700
				2150×1600	2240×1785	2750	2300	5650	2300	3050	4100	6000	4100	10200	7000		

Malaysia, Singapore

(Unit : mm)

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size				Machine Room Size				Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
				Inside	Outside	Simplex		Duplex		Simplex		Duplex					
	Person	Load(kg)		AN×BN	AS×BS	AH	BH	AH	BH	AM	BM	AM	BM	R1	R2	R3	R4
60	6	450	800	1400×820	1450×985	1800	1420	3750	1420	2100	3170	4100	3170	3600	2000	3800	3150
	8	550	800	1400×1030	1450×1195	1800	1630	3750	1630	2100	3400	4100	3400	4050	2500	4550	3350
	9	610	800	1400×1150	1450×1315	1800	1750	3750	1750	2100	3550	4100	3550	4100	2500	4700	3450
	10	680	800	1400×1250	1450×1415	1800	1850	3750	1850	2100	3650	4100	3650	4200	2800	5000	3600
	11	750	800	1400×1350	1450×1515	1800	1950	3750	1950	2100	3750	4100	3750	4550	2900	5200	3750
	13	900	900	1600×1350	1650×1515	2000	1950	4150	1950	2300	3750	4500	3750	5100	3800	6300	4500
	15	1020	900	1600×1550	1650×1715	2000	2150	4150	2150	2300	3950	4500	3950	5450	4300	6600	4700
	17	1155	1000	1800×1500	1890×1685	2400	2200	4950	2200	2700	4000	5300	4000	8000	5200	9550	7150
			1100	2000×1350	2090×1535	2600	2050	5350	2050	2900	3850	5700	3850	8000	5200		
	20	1360	1000	1800×1750	1890×1935	2400	2450	4950	2450	2700	4250	5300	4250	8900	6000	10150	7500
			1100	2000×1550	2090×1735	2600	2250	5350	2250	2900	4050	5700	4050	8900	6000		
	23	1565	1100	2000×1750	2090×1935	2600	2450	5350	2450	2900	4250	5700	4250	10200	7000	10900	8700
				2150×1600	2240×1785	2750	2300	5650	2300	3050	4100	6000	4100	10200	7000		

Technical Data

Planning Guide For Dimensions | Di1 (90,105 m/min)

Standard

(Unit : mm)

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size				Machine Room Size				Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
				Inside	Outside	Simplex		Duplex		Simplex		Duplex					
	Person	Load(kg)		AN×BN	AS×BS	AH	BH	AH	BH	AM	BM	AM	BM	R1	R2	R3	R4
90 105	8	550	800	1400×1030	1450×1195	1800	1630	3750	1630	2100	3400	4100	3400	4200	2800	6550	4800
	9	600	800	1400×1100	1450×1265	1800	1700	3750	1700	2100	3500	4100	3500	4500	3100	6850	5000
	10	680	800	1400×1250	1450×1415	1800	1850	3750	1850	2100	3650	4100	3650	4900	3400	7450	5350
	11	750	800	1400×1350	1450×1515	1800	1950	3750	1950	2100	3750	4100	3750	5250	3700	7850	5550
	13	900	900	1600×1350	1650×1515	2000	1950	4150	1950	2300	3750	4500	3750	5750	4100	9000	6250
	15	1000	900	1600×1500	1650×1665	2000	2100	4150	2100	2300	3900	4500	3900	6150	4600	9650	6650
	17	1150	1000	1800×1500	1890×1685	2400	2200	4950	2200	2700	4000	5300	4000	9400	7750	14100	10400
			1100	2000×1350	2090×1535	2600	2050	5350	2050	2900	3850	5700	3850	9400	7750		
	20	1350	1000	1800×1700	1890×1885	2400	2400	4950	2400	2700	4200	5300	4200	10000	8250	15400	11150
			1100	2000×1500	2090×1685	2600	2200	5350	2200	2900	4000	5700	4000	10000	8250		
	24	1600	1100	2000×1750	2090×1935	2600	2450	5350	2450	2900	4250	5700	4250	11550	8700	16950	12000
				2150×1600	2240×1785	2750	2300	5650	2300	3050	4100	6000	4100	11550	8700		

EN Code

(Unit : mm)

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size				Machine Room Size				Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
				Inside	Outside	Simplex		Duplex		Simplex		Duplex					
	Person	Load(kg)		AN×BN	AS×BS	AH	BH	AH	BH	AM	BM	AM	BM	R1	R2	R3	R4
90 105	7	525	800	1400×1030	1450×1195	1800	1630	3750	1630	2100	3400	4100	3400	4050	2500	6550	4800
	8	600	800	1400×1100	1450×1265	1800	1700	3750	1700	2100	3500	4100	3500	4100	2500	6850	5000
	9	675	800	1400×1250	1450×1415	1800	1850	3750	1850	2100	3650	4100	3650	4200	2800	7450	5350
	10	800	800	1400×1350	1450×1515	1800	1950	3750	1950	2100	3750	4100	3750	4550	2900	7850	5550
	12	900	900	1600×1350	1650×1515	2000	1950	4150	1950	2300	3750	4500	3750	5100	3800	9000	6250
	13	1000	900	1600×1500	1650×1665	2000	2100	4150	2100	2300	3900	4500	3900	5450	4300	9650	6650
	16	1200	1000	1800×1500	1890×1685	2400	2200	4950	2200	2700	4000	5300	4000	8000	5200	14100	10400
			1100	2000×1350	2090×1535	2600	2050	5350	2050	2900	3850	5700	3850	8000	5200		
	18	1350	1000	1800×1700	1890×1885	2400	2400	4950	2400	2700	4200	5300	4200	8900	6000	15400	11150
			1100	2000×1500	2090×1685	2600	2200	5350	2200	2900	4000	5700	4000	8900	6000		
	21	1600	1100	2000×1750	2090×1935	2600	2450	5350	2450	2900	4250	5700	4250	10200	7000	16950	12000
				2150×1600	2240×1785	2750	2300	5650	2300	3050	4100	6000	4100	10200	7000		

Malaysia, Singapore

(Unit : mm)

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size				Machine Room Size				Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
				Inside	Outside	Simplex		Duplex		Simplex		Duplex					
	Person	Load(kg)		AN×BN	AS×BS	AH	BH	AH	BH	AM	BM	AM	BM	R1	R2	R3	R4
90 105	8	550	800	1400×1030	1450×1195	1800	1630	3750	1630	2100	3400	4100	3400	4050	2500	6550	4800
	9	610	800	1400×1150	1450×1315	1800	1750	3750	1750	2100	3550	4100	3550	4100	2500	6850	5000
	10	680	800	1400×1250	1450×1415	1800	1850	3750	1850	2100	3650	4100	3650	4200	2800	7450	5350
	11	750	800	1400×1350	1450×1515	1800	1950	3750	1950	2100	3750	4100	3750	4550	2900	7850	5550
	13	900	900	1600×1350	1650×1515	2000	1950	4150	1950	2300	3750	4500	3750	5100	3800	9000	6250
	15	1020	900	1600×1550	1650×1715	2000	2150	4150	2150	2300	3950	4500	3950	5450	4300	9650	6650
	17	1155	1000	1800×1500	1890×1685	2400	2200	4950	2200	2700	4000	5300	4000	8000	5200	14100	10400
			1100	2000×1350	2090×1535	2600	2050	5350	2050	2900	3850	5700	3850	8000	5200		
	20	1360	1000	1800×1750	1890×1935	2400	2450	4950	2450	2700	4250	5300	4250	8900	6000	15400	11150
			1100	2000×1550	2090×1735	2600	2250	5350	2250	2900	4050	5700	4050	8900	6000		
	23	1565	1100	2000×1750	2090×1935	2600	2450	5350	2450	2900	4250	5700	4250	10200	7000	16950	12000
				2150×1600	2240×1785	2750	2300	5650	2300	3050	4100	6000	4100	10200	7000		

Planning Guide For Dimensions | Di2 (Speed : 120&150 m/min), Geared

Standard

(Unit:mm)

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size						Machine Room Size						Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
	Person	Load (kg)		Inside	Outside	Simplex		Duplex		Triplex		Simplex		Duplex		Triplex					
				AN×BN	AS×BS	AH	BH	AH	BH	AH	BH	AM	BM	AM	BM	AM	BM	R1	R2	R3	R4
120 150	13	900	900	1600×1350	1690×1535	2200	2150	4550	2150	6900	2150	2800	4100	5200	4100	7500	4700	11100	7550	13250	10100
	15	1000	900	1600×1500	1690×1685	2200	2300	4550	2300	6900	2300	2800	4200	5200	4200	7500	4800	11650	7850	13950	10550
	17	1150	1000	1800×1500	1890×1685	2400	2300	4950	2300	7500	2300	3000	4200	5600	4200	8100	4800	12300	8250	16600	12650
	20	1350	1000	1800×1700	1890×1885	2400	2500	4950	2500	7500	2500	3000	4400	5600	4400	8100	5100	13100	8850	18050	13550
	24	1600	1100	2000×1750	2090×1935	2600	2550	5350	2550	8100	2550	3200	4500	6000	4500	8700	5200	13900	9350	19550	14350

EN Code

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size						Machine Room Size						Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
	Person	Load (kg)		Inside	Outside	Simplex		Duplex		Triplex		Simplex		Duplex		Triplex					
				AN×BN	AS×BS	AH	BH	AH	BH	AH	BH	AM	BM	AM	BM	AM	BM	R1	R2	R3	R4
120 150	12	900	900	1600×1350	1690×1535	2200	2150	4550	2150	6900	2150	2800	4100	5200	4100	7500	4700	11100	7550	13250	10100
	13	1000	900	1600×1500	1690×1685	2200	2300	4550	2300	6900	2300	2800	4200	5200	4200	7500	4800	11650	7850	13950	10550
	16	1200	1000	1800×1500	1890×1685	2400	2300	4950	2300	7500	2300	3000	4200	5600	4200	8100	4800	12300	8250	17550	13300
	18	1350	1000	1800×1700	1890×1885	2400	2500	4950	2500	7500	2500	3000	4400	5600	4400	8100	5100	13100	8850	18050	13550
	21	1600	1100	2000×1750	2090×1935	2600	2550	5350	2550	8100	2550	3200	4500	6000	4500	8700	5200	13900	9350	19550	14350

Malaysia, Singapore

Speed (m/min)	Capacity		Entrance Opening (mm)	Car Size		Hoistway Size						Machine Room Size						Machine Room Reaction Load(kg)		Pit Reaction Load(kg)	
	Person	Load (kg)		Inside	Outside	Simplex		Duplex		Triplex		Simplex		Duplex		Triplex					
				AN×BN	AS×BS	AH	BH	AH	BH	AH	BH	AM	BM	AM	BM	AM	BM	R1	R2	R3	R4
120 150	13	900	900	1600×1350	1690×1535	2200	2150	4550	2150	6900	2150	2800	4100	5200	4100	7500	4700	11100	7550	13250	10100
	15	1020	900	1600×1550	1690×1735	2200	2350	4550	2350	6900	2350	2800	4250	5200	4250	7500	4850	11650	7850	13950	10550
	17	1155	1000	1800×1500	1890×1685	2400	2300	4950	2300	7500	2300	3000	4200	5600	4200	8100	4800	12300	8250	16600	12650
	20	1360	1000	1800×1750	1890×1935	2400	2550	4950	2550	7500	2550	3000	4450	5600	4450	8100	5150	13100	8850	18050	13550
	23	1565	1100	2000×1750	2090×1935	2600	2550	5350	2550	8100	2550	3200	4500	6000	4500	8700	5200	13900	9350	19550	14350

Technical Data

Electrical Design Guide

Di1 (Speed : 60,90 & 105 m/min)

220V / 400V

Speed (m/min)	Capacity		Motor Capa. (kW)	MCCB Capacity of Building (A)		Power Supply Capacity(kVA)		Lead - in Wire Size(mm²)		Earth Wire Size(mm²)	Heat Output (kcal / H)	Starting Power (kVA / set)
	Person	Load (kg)		Simplex	Duplex	Simplex	Duplex	Simplex	Duplex			
60	6	450	5.5	50 / 30	100 / 60	4.2	8.4	8 / 5.5	14 / 5.5	5.5 / 3.5	675	13.1
	8	550	5.5	50 / 30	100 / 60	5.1	10.2	8 / 5.5	14 / 5.5	5.5 / 3.5	825	16
	9	600	7.5	50 / 30	100 / 60	5.5	11	8 / 5.5	14 / 5.5	5.5	900	17.5
	10	680	7.5	75 / 50	150 / 100	6.3	12.6	14 / 5.5	22 / 8	5.5	1020	19.9
	11	750	11	75 / 50	150 / 100	6.9	13.8	14 / 5.5	22 / 8	5.5	1125	21.8
	13	900	11	75 / 50	150 / 100	8.3	16.6	22 / 5.5	38 / 14	8 / 5.5	1350	26.2
	15	1000	11	75 / 50	150 / 100	9.2	18.4	22 / 5.5	38 / 14	8 / 5.5	1500	29.1
	17	1150	11	75 / 50	150 / 100	10	20	22 / 5.5	38 / 14	8 / 5.5	1725	23
	20	1350	11	100 / 50	125 / 100	8.9	17.8	22 / 5.5	38 / 14	8 / 5.5	2025	28.1
	24	1600	11	100 / 50	200 / 100	10.5	21	22 / 8	60 / 22	8 / 5.5	2400	33.3
90	8	550	9.5	75 / 50	100 / 60	6.6	13.2	14 / 5.5	22 / 8	5.5	1238	20.7
	9	600	9.5	75 / 50	100 / 60	7.1	14.2	14 / 5.5	22 / 8	5.5	1350	22.6
	10	680	9.5	75 / 50	100 / 60	8.1	16.2	14 / 5.5	38 / 14	5.5	1530	25.6
	11	750	9.5	75 / 50	150 / 100	8.9	17.8	14 / 5.5	38 / 14	5.5	1688	28.2
	13	900	13	75 / 50	150 / 100	10.7	21.4	22 / 5.5	38 / 14	14 / 5.5	2025	33.8
	15	1000	13	75 / 50	150 / 100	11.9	23.8	22 / 5.5	38 / 14	14 / 5.5	2250	37.6
	17	1150	13	100 / 60	200 / 100	11.3	22.6	22 / 8	60 / 22	14 / 5.5	2588	35.9
	20	1350	15	100 / 50	200 / 100	12.8	25.6	38 / 14	60 / 22	14 / 5.5	3040	40.7
	24	1600	15	125 / 75	250 / 125	15.2	30.4	38 / 14	60 / 22	14 / 5.5	3600	48.2
105	8	550	11	75 / 50	100 / 60	7.6	15.2	14 / 5.5	38 / 14	5.5	1445	24.1
	9	600	11	75 / 50	100 / 60	8.3	16.6	14 / 5.5	38 / 14	5.5	1575	26.3
	10	680	11	75 / 50	100 / 60	9.4	18.8	14 / 5.5	38 / 14	5.5	1785	29.8
	11	750	11	75 / 50	150 / 100	10.4	20.8	14 / 5.5	38 / 14	5.5	1970	32.8
	13	900	15	100 / 50	150 / 100	12.5	25	22 / 8	60 / 22	14 / 5.5	2365	39.4
	15	1000	15	100 / 50	150 / 100	13.8	27.6	22 / 8	60 / 22	14 / 5.5	2625	43.8
	17	1150	15	125 / 60	250 / 125	13.2	26.4	38 / 14	60 / 22	14 / 5.5	3019	41.8
	20	1350	18	125 / 75	250 / 125	15	30	38 / 14	60 / 22	14 / 5.5	3544	47.4
	24	1600	18	150 / 75	300 / 125	17.7	35.4	60 / 22	100 / 38	14 / 5.5	4200	56.2

Note. Please contact us if the distance of lead - in wire exceeds 50m.

Heat Output of Machine Room

kcal / H = F×L×S (H : Hour / F : Factor = 1/40 / L : Rated Load(kg) / S : Rated Speed (m/min) / *cal = 4.2 Joule)

Di2 (Speed : 120, 150 m/min), Geared

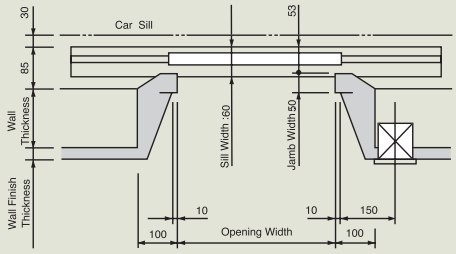
200V / 400V

Speed (m/min)	Capacity		Motor Capa. (kW)	MCCB Capacity of Building(A)				Power Supply Capacity(kVA)				Lead-in Wire Size(㎟)				Earth Wire Size(㎟)	Heat Output (kcal/H)	Starting Power (kVA/set)
	Person	Load (kg)		Simplex	Duplex	Triplex	Fourplex	Simplex	Duplex	Triplex	Fourplex	Simplex	Duplex	Triplex	Fourplex			
120	15	1000	18	90 / 50	180 / 100	240 / 135	275 / 155	15	30	41	46	38 / 14	100 / 22	150 / 30	200 / 38	14	3000	35
	17	1150	20	105 / 60	205 / 115	280 / 160	320 / 185	17	34	46	51	50 / 14	100 / 30	200 / 38	200 / 50	14	3450	39
	20	1350	22	125 / 75	250 / 140	340 / 195	390 / 225	20	40	53	59	50 / 14	125 / 38	200 / 60	250 / 80	14	4050	43
	24	1600	24	150 / 85	295 / 165	400 / 230	455 / 265	23	46	62	69	60 / 22	150 / 38	250 / 60	325 / 80	14	4800	48
150	15	1000	22	120 / 70	235 / 130	315 / 185	360 / 210	18	37	50	55	50 / 14	125 / 30	200 / 50	250 / 60	14	3750	46
	17	1150	24	130 / 80	260 / 145	355 / 205	405 / 235	21	42	57	63	60 / 14	150 / 38	250 / 60	325 / 80	14	4313	51
	20	1350	27	155 / 90	305 / 170	415 / 240	475 / 275	24	48	65	73	60 / 22	200 / 38	325 / 60	400 / 80	22	5063	57
	24	1600	30	185 / 110	365 / 205	495 / 290	570 / 330	28	57	77	85	80 / 22	200 / 50	325 / 80	500 / 100	22	6000	64

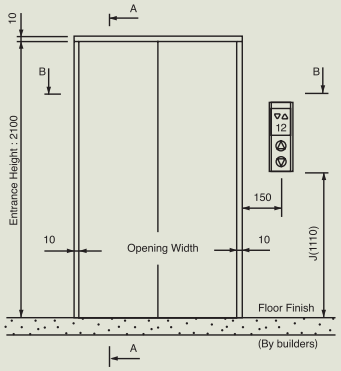
Entrance Details

Narrow Jamb without Transom Panel
Door Machine : SAV1

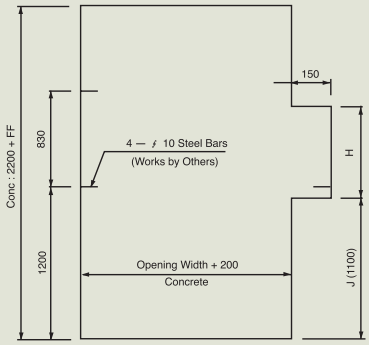
Section B-B



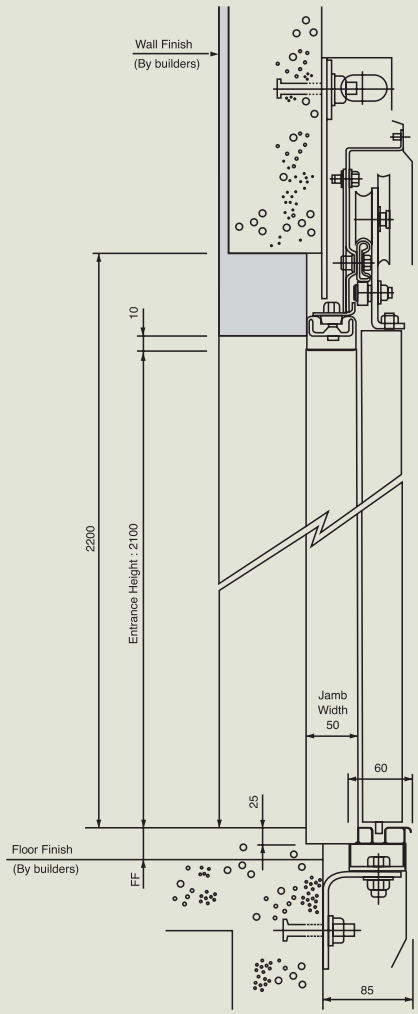
Front View of Entrance



Building Structure Plan



Section A-A



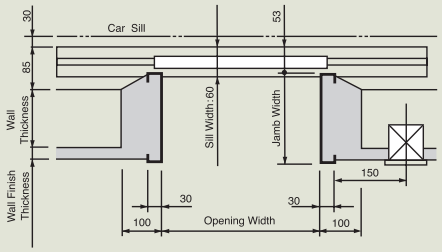
Note

1. "H" dimension in building structure plan depends upon the type of hall indicator selected.
2. "J" dimension depends upon governing code requirement for height(above floor) of hall buttons.
3. Unit : mm

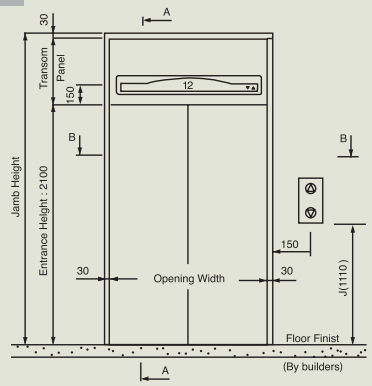
Technical Data

S-Type Wide Jamb with Transom Panel(with accentric line)
Door Machine : SAV1

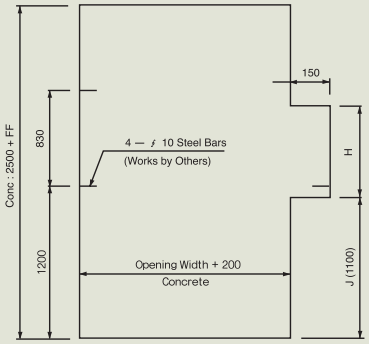
Section B-B



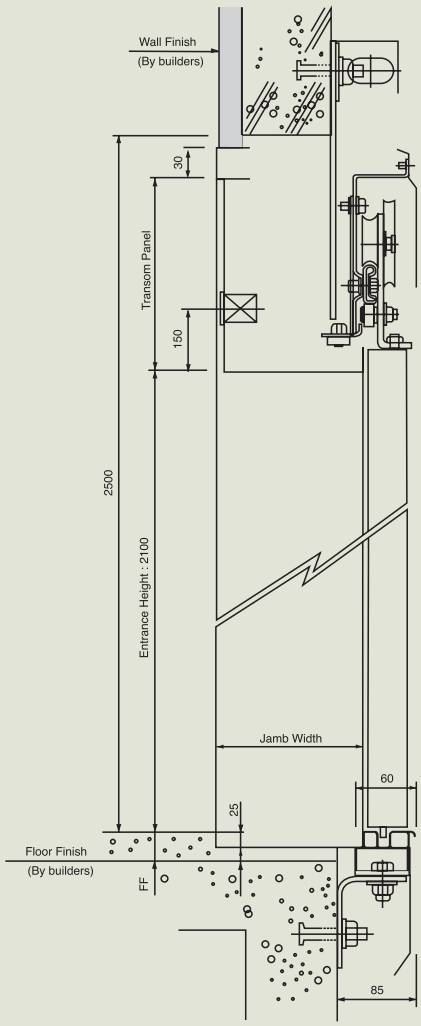
Front View of Entrance



Building Structure Plan



Section A-A



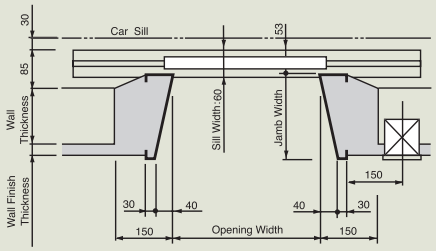
Note

1. "H"dimension in building structure plan depends upon the type of hall indicator selected.
2. "J"dimension depends upon governing code requirement for height(above floor) of hall buttons.
3. Unit : mm

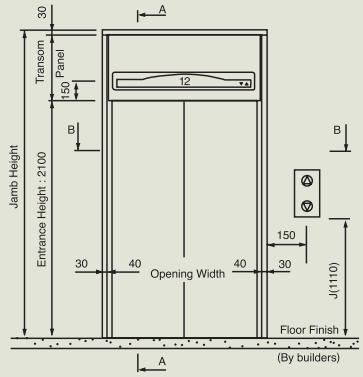
Entrance Details

T-Type Wide Jamb with Transom Panel(With accentric line)
Door Machine : SAV1

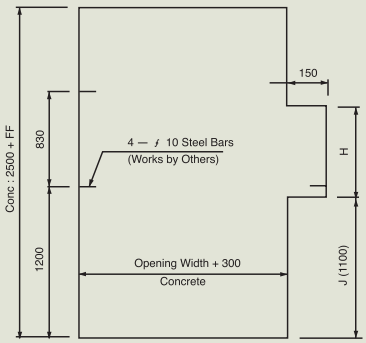
Section B-B



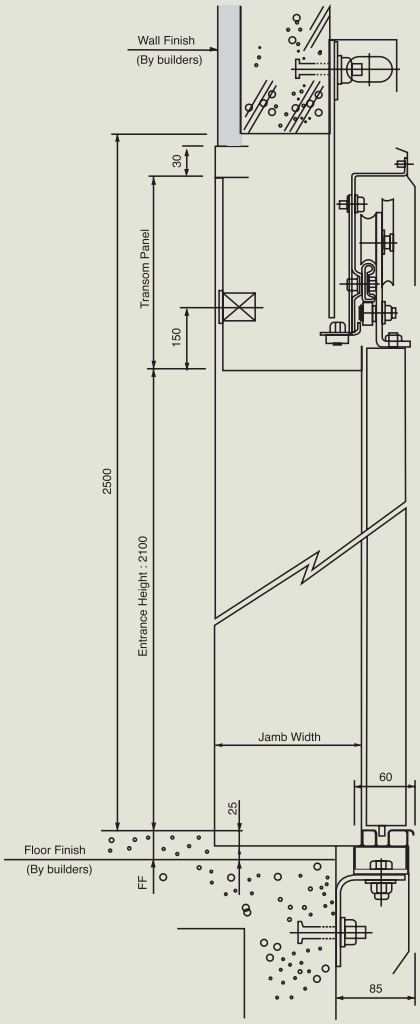
Front View of Entrance



Building Structure Plan



Section A-A



Note

1. "H" dimension in building structure plan depends upon the type of hall indicator selected.
2. "J" dimension depends upon governing code requirement for height(above floor) of hall buttons.
3. Unit : mm

Technical Data

Technical Features

● Standard ○ Option

Feature	Description	Remark
Anti-nuisance operation	In case of substantial difference between the number of calls registered on the car operating panel and actual load in the elevator, the elevator prevents unnecessary operation by cancelling all registered calls when it arrives at the nearest floor.	●
Car call cancellation	Allows cancellation of an incorrectly registered car call. If you push a wrong floor button in the car, you can cancel it by pressing the same button one more time.	●
Automatic turn off of car light and fan	Car illumination and fan are turned off automatically in case there is no hall call or car call to save energy.	●
By pass operation (80%)	If the actual load comes to more than 80% of the allowable maximum load, the elevator will not react to the calling signals from other passing floors.	●
Over load (110% of rated load) holding stop	When the load of passengers exceeds the maximum capacity, a buzzer sounds and the elevator remains stopped at that floor. When the passengers get off, the buzzer will stop. Consequently elevator doors will close and operation continues.	●
Anti hall button jamming	If landing door would not closed by a hall button's jamming and it is caused car can't start then, the floor will close in force by the command from controller so that the car service next calls.	●
Door reopen control	While the car door is closing, if a door reopen signal is occured the door will be reopened immediately and after specified time expired the door will again close.	●
Car door safety edge	This device enables the doors to return to the fully open position, should the door encounter a person or obstacle while closing.	●
Automatic adjustment of door time	Door closing time can be adjusted in order to improve the efficiency.	●
Micro Leveling	An automatic two-way leveling device is provided to maintain the elevator car level with the landing, regardless of elevator load or direction travel	●
Back-up operation	In normal operation, if the serial communication between the controller and it's terminal board have something malfunction, the car mode is changed to a "back-Up" mode automatically, then the car checks itself by servicing every even floors and every odd floors until the car returns normal condition. By this operation, even though the car has something malfunction, passergers can be offered a limited service without shoutdown.	●
Safety Drive operation	During normal operation, a malfunction is occurred suddenly but it's not serious, in this case, if the car is not in a door zone, then the car starts to run to the nearest floor in slow speed. After stop at the nearest floor, the care remains stop with door fully open and "Out of Service" lamp. If the car condition is possible to return a normal condition itself then, the car can service normal operation again.	●
Voice synthesizer	This system provides passengers with audio information about car operation such as direction of travel, landing floor, etc.	○
Door photo sensor	The doors will return to fully open position if the light ray unit detects an obstacle when the doors are closing.	○
Multi-Photo	When passengers are entering or getting out of the elevator, the multi-photo device will prevent the door from closing.	○
Forced floor stop	After service on specific floor stop by car call, the car is operated normally.	○
Supervisory panel	This panel monitors elevator operations and conditions of emergency operations from the building's control room	○
Parking Operation	In order for park the elevator, if the parking key is on position the car stop at the specified floor after finish servicing of all of registered calls. After the car stops at the specified floor, the car light and fan are off automatically and every buttons both on the car operating panel and hall button box are no more available.	○
Fire return operation	In case of fire every cars should be returned to the specified floor in order to evacuate passengers safety.	○
Fireman Operation	In case of fire, a firemen can use the elevator which is stopped at the specified floor in order to support firemen for fire-fighting.	○

Work By Others

The works below are not included in the elevator installation work and should be carried out by building contractors in accordance with our drawings, relevant international or local codes and regulations.

Hoistway

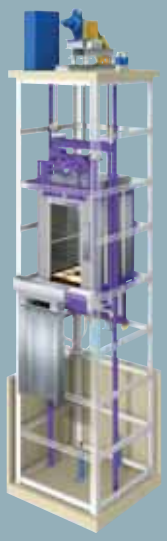
- A properly framed and enclosed hoistway, including any ventilation as required by the governing code or authority.
- A dry pit constructed to the elevator manufacturer's specifications to reinforce or sustain any vertical forces on the guide rails and impacted loads from the car and counterweight buffers.
- A metal sill angle or concrete haunch across the full width of the hoistway at each elevator landing.
- Provision of steel bars to fix jamb around the entrance of each floor.
- All cutting, including cutouts to accommodate hall singal fixtures, patching, painting of walls, floors, or partitions, together with finish painting of entrance doors and frames, if required.
- Provision of entrance or ladder for pit access
- Supply and installation of fascia plate.
- Installation of emergency exits and electric wiring in blind sections of hoistway where required.
- The tolerance of perpendicular line over the whole hoistway height must not exceed ±30mm.
- A waterproof outlet and light fixture in the elevator pit area with the light switch being located adjacent to the access door or ladder.
- Suitable light fixture and convenience outlet in the pit with a light switch adjacent to the access door or ladder. The receptacles shall have protection for ground fault circuit interrupter.

Machine Room

- Provision of wiring between controller and building management system.
- A construction hoisting beam or hook, if required, with the correct location and size as determined by the elevator contractor for each hoistway.
- Noise insulation should be installed between machine room and adjacent residential area.
- A suitable machine room with legal access, ventilation and concrete floor.
  The temperature in the machine room should be maintained between 5℃ and 40℃.
  Relative humidity should not exceed 90%(monthly) and 95%(daily) non-condensing.
  Ventilation fan or air conditioner should be provided as per heat dissipation by the elevator contractor.
- The size of entrance shall be Min.1000mm(W) x 2000mm(H).
- Installation of lead-in wire and earth wire between building main power board and machine room incoming distribution board. However, machine room lighting source supply shall be installed separately.
- Provision of suitable light fixture and convenience outlets in the machine room

Miscellaneous

- Wiring and piping between monitoring system.
- Machine room and hoistway shall be free of dust or harmful gas.
- All electric power for lighting, tools, welding, etc during installation.
- All single phase receptacles installed in machine room, pit, and machinery spaces shall have ground fault circuit interrupter protection.
- Fire detector for fire emergency operation.
- A secured area for storage of elevator equipment and materials during installtion.



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